

USAWC STRATEGY RESEARCH PROJECT

AIR FORCE ORGANIZATIONAL TRANSFORMATION:  
MERGING THE ACTIVE AND RESERVE COMPONENTS

by

Lieutenant Colonel Jonathan Warren  
United States Air Force

Colonel David Cameron  
Project Advisor

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## ABSTRACT

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The transformation of the Department of Defense includes, among other things, changes to organizational structures. This paper examines efforts by the United States Air Force to transform its organizational structure by creating a closer relationship between its active and reserve component units. The study begins by reviewing basic organizational theory and then describes the Air Force's current organizational structure. It then identifies the key factors in the current and future operating environments that are driving the need for organizational change. Next, it outlines the future organizational structures that are presently under consideration. These include the active associate, reserve associate, and blended unit concepts. Finally, it provides a recommendation as to which concept will best meet the future warfighting needs of the Air Force.



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## AIR FORCE ORGANIZATIONAL TRANSFORMATION: MERGING THE ACTIVE AND RESERVE COMPONENTS

Transformation is about creating the future rather than perfecting the past.

—David M. Walker, Comptroller General of the United States

Today, even as our troops are engaged in numerous conflicts around the globe, our military services are engaged in an entirely different kind of mission. That mission is transformation. As defined by the Department of Defense, transformation includes “new combinations of concepts, capabilities, people, and organizations.”<sup>1</sup> This study focuses on the latter piece—transforming organizational structures. More specifically, it examines the difficult issue of how the United States Air Force should best blend its active and reserve component forces into the optimum aerospace organization for the 21<sup>st</sup> century. The moniker given to this emerging organizational construct is the Future Total Force or ‘FTF’. According to Air Force Lieutenant General Duncan McNabb, the FTF will integrate the military and civilian personnel from all of the components “to produce greater combat capability more efficiently”.<sup>2</sup>

The following pages will show why this transformation effort has been and will continue to be essential to the development of air and space power. This study begins with an examination of basic organizational concepts in order to understand why a specific structure may help to achieve mission success. It then reviews the Air Force’s current organizational structure and describes the environmental factors which will shape the future force. Next, it explores the FTF concepts currently under consideration, explaining the differences between them. Finally, it provides a recommendation as to which concept will best support the Air Force’s future warfighting capability.

### **ORGANIZATIONS**

Why is organizational structure so important? For most people, the need to organize a given entity in order to function in a coherent manner is well understood and accepted. The difficult question then is not “why do we need to organize,” but rather “how should we organize?” People have been writing on this topic at least since the time of Aristotle.<sup>3</sup> Although Aristotle’s efforts focused on types of government, choosing the best organizational structure for a business, a military, or a similar entity requires addressing many of the same issues. In their book *Organizations*, James March and Herbert Simon explain classical organizational theory in the following manner.<sup>4</sup>

Given a general purpose for an organization, we can identify the unit tasks necessary to achieve that purpose. These tasks will normally include basic productive activities, service activities, coordinative activities, supervisory activities, etc. The problem is to group these tasks into individual jobs, to group the jobs into administrative units, to group the units into larger units, and finally to establish top level departments—and to make these groupings in such a way as to minimize the total cost of carrying out all the activities.

Given this straightforward approach to organization, we can compare this theory against the Air Force's current organizational doctrine. Air Force Policy Directive 38-1 (AFPD 38-1), Organization, specifies seven principal characteristics that Air Force Organizations should exhibit. These seven characteristics and their AFPD description are listed below.<sup>5</sup>

Mission Orientation - Organizations should have a reason to exist and should be designed to achieve the outcome defined in applicable mission directive.

Unambiguous Command – Organizational structure should provide a clear chain of command running from the President to the most junior airman.

Decentralization – Organizations should be designed so lower echelons can achieve objectives without needing continuous control from above.

Agility – Organizations should be structured so personnel can recognize problems, find solutions, make decisions, and implement them quickly.

Flexibility – Organizations should be capable of adapting rapidly to changing external circumstances.

Simplicity – Organizational structure should be as plain and straightforward as possible because complexity often inhibits rather than facilitates organizational effectiveness

Standardization – Organizations with like responsibilities should have similar organizational structures

Additionally, Air Force Instruction 38-101 (AFI 38-101), Manpower and Organization, states that in order to achieve the characteristics outlined above, organizational structures should adhere to five specific principles. These principles and their definitions are provided in the following excerpts from AFI 38-101.<sup>6</sup>

Emphasis on Wartime Tasks – Organizations must be structured to accomplish wartime tasks without reorganizing

Functional Grouping – Organizations have these characteristics: a clear cut purpose, goal and scope, with one individual in charge; parts that form a logical, separable activity; a close relationship among the parts, constituting a complete entity; and natural divisions of work that clearly define where responsibility begins and ends.

Lean Organizational Structures – Organizations must encourage rapid decision making, so they should be flat structures without intermediate levels, unless mission requirements cannot otherwise be met...Both the number of supervisors and the number of internal subdivisions within organizations should be designed to minimize layers and maximize worker-to-supervisor ratios.

Skip-Echelon Structure – Major commands (MAJCOMs) sit on top of a skip-echelon staffing structure. MAJCOMs, wings, and squadrons possess the full range of staff functions needed to perform required tasks; numbered air forces (NAF), groups, and flights have no or minimal staff...The chain of command and responsibility for mission accomplishment runs through commanders at all levels.

Standard Levels – The Air Force uses standard levels...to design organizations. Establish organizations at the lowest level required to successfully accomplish the primary mission. Factors such as scope of responsibility, span of control and functional grouping of related missions/activities are the predominant factors that determine organizational kind.

These characteristics and principles will serve as valuable tools later in this study because they provide a means for evaluating the various organizational proposals currently under consideration. Since these characteristics and principles have an enduring quality, they will be an effective standard for judging not only the effectiveness of today's organizations, but also those of the future.

It is also important to have a functional understanding of the current organizational structure prior to deliberating on future concepts. Today, the basic organizational level for the employment of combat power in the Air Force is the Standard Wing structure.<sup>7</sup> This structure meets all of the criteria outlined in the preceding paragraphs and is the same for both the active component (AC) and the reserve component (RC). The Future Total Force proposal does not recommend abandoning the wing concept, instead, it merely suggests changes to its current composition. Specifically, it offers ways to more closely integrate active and reserve personnel within the existing structure. Are these proposed changes really transformational? Are they really necessary? The answer to both of these questions is 'Yes'. That said, it is often helpful to identify the catalyst which is driving this need for change.

According to Douglas Cupo in his research paper titled, Managing Strategic Organizational Change, "Organizational transformation takes place when an organization responds to major changes in its environment or technology."<sup>8</sup> To better understand the types of organizational change that may be required of the Air Force, we must identify those environmental and technological changes that are occurring and understand how they will influence future operations.

## THE ENVIRONMENT

The factors which will help shape the future Air Force may be broken down into two basic categories. The first category, the internal environment, consists of those things over which the service may exhibit a large degree of control. The second category, the external environment, contains those items over which the service has little or no direct control. Although each category may be comprised of numerous factors, we will consider those few which will have the greatest impact on future organizational structures.

### INTERNAL FACTORS

The two internal factors which will have the greatest potential impact on organizational change will be new concepts for force employment and new developments in technology. Although these two issues are closely intertwined, they are treated as separate issues here.

Shortly after its inception in 1947, the Air Force became the first service capable of projecting power globally without deploying any of its members. Airmen sitting in missile silos could launch the most destructive weapons in the military arsenal towards any corner of the earth without ever leaving home. Additionally, B-52 bomber and KC-135 tanker aircrews could launch from and recover to bases within the United States. The fact that the Air Force could wage a total war from home was then and is now a unique capability without parallel in the other services. Even when an overseas presence was required, the Air Force was usually able to permanently station airmen and their families abroad rather than deploy them on a temporary basis. Not only were deployments few and far between, but there was also little need for frequent mobilizations of air reserve forces during much of the cold war.<sup>9</sup> In 1989, Operation JUST CAUSE again proved that airpower could be projected from home. Air Force C-130s and C-141s departed from U.S. bases, airdropped Army soldiers into Panama, and then recovered back to the U.S. that same night. Additionally, F-117s departed from U.S. bases, refueled in flight, attacked targets in Panama, and returned home. Most airmen enjoyed the fact that they could eat dinner at home, go to war, and still be home in time for breakfast. This comfortable culture came to an abrupt end the following year.

Beginning with Operation DESERT STORM and continuing with many other operations throughout the 1990s, the Air Force found itself deploying forces more frequently. At the same time, the reliance on the reserve component began to steadily increase as the total size of the active force was reduced by 40 percent.<sup>10</sup> As a result, the percentage of active duty airmen that were designated as deployable grew from 12 percent of the force in 1990 to 76 percent in 2000.<sup>11</sup> As an additional measure to cope with this dramatic shift in employment, then Chief of

Staff of the Air Force General Michael E. Ryan introduced the Aerospace Expeditionary Force (AEF) construct. The AEF sought to provide a predictable rotation cycle that would level the deployments across the force and also facilitate reserve component participation. The Air Force already enjoyed a high degree of access to the Air National Guard and Air Force Reserve through volunteerism. Providing a predictable schedule was viewed as an essential element for integrating more Guard and Reserve personnel into the mix.

Another key element of the AEF was the advent of the Air Expeditionary Wing. As described by Richard Davis in his book *Anatomy of Reform*, the AEW allowed the Air Force to present forces to the theater commanders in an innovative manner and this was probably the greatest feature of the new expeditionary structure.<sup>12</sup> Prior to this change, the Air Force had only planned to deploy forces as entire units, either squadrons or wings. The new concept tailored the force required for each situation by deploying only the exact number of aircraft and personnel necessary for that specific mission. These tailored packages from active, guard, and reserve units would be co-located together at the same deployed location and work for a single commander. Achieving this type of integration while deployed has led many to question whether a similar organizational structure should exist for the peacetime, non-deployed force.

How do these past experiences provide us with insight about future employment concepts? Simply this—the good old days were actually pretty good. Is a 'Back to the Future' scenario a likely outcome? The Air Force is currently in the AEF mode out of necessity. If the Air Force could once again project power from home, it would. Rapidly advancing technology is turning this possibility into a reality. For some time the Air Force has been migrating its intelligence, surveillance, and reconnaissance (ISR) capability into a non-deploying force. As more satellites are placed into orbit and unmanned aerial vehicles such as Global Hawk are flown into foreign theaters, the need to deploy ISR assets continues to decline. The Air Force also possesses the capability to launch and recover global strike missions from home using aircraft such as the B-2 bomber.<sup>13</sup> Mobility forces will also deploy less often. Newer transport aircraft like the C-17 will deliver troops to battle, but they will not normally remain in theater. Although the fighter aircraft is one example of combat power that still must deploy today, it may be possible within the next generation to transform that capability as well. Even if the Air Force continues to deploy forces for certain operations, the size of these deployments will be greatly reduced. This is because technology can now provide the combatant commander greater capability with fewer aircraft. Currently one B-2 can drop 80 Global Positioning System (GPS) munitions on one sortie.<sup>14</sup> This will allow our future fighter force of F-22s and F-35s to be about half the size of our current force.<sup>15</sup> Another advancement in technology occurred in November

2004 when the National Aeronautics and Space Administration conducted a successful test of the X-45A scramjet.<sup>16</sup> This aerospace vehicle reached a maximum speed of 6,600 miles per hour. It is believed that 10,000 miles per hour is not far off. With this technology available for missiles and unmanned aircraft, the need to deploy combat air forces becomes even more remote given the ability to launch and quickly reach targets anywhere in the world from home bases.

So the 'Back to the Future' concept of employment for the Air Force will result in fewer overseas deployments. It may also result in fewer mobilizations, but it is too early to know this for sure. What is known is that by blending the active and reserve components in the right way, it will be possible to reduce the number of involuntary call-ups needed to project airpower. With the internal factors pointing in one direction, it is time to look at the external factors to determine how these will influence and shape the future force.

#### EXTERNAL FACTORS

The external factors which will have the greatest potential impact on organizational change will be a steady decline in the number of permanent U.S. operating locations worldwide, a demographic shift in the labor force, and a relative decline in defense spending.

While the number and location of Air Force bases may appear to be something that the service does have some control over, the reality is that political and economic factors also play a large role. In 1990, the Air Force had 27 permanent operating locations outside of the contiguous United States (OCONUS), and no expeditionary operating locations.<sup>17</sup> By 2004, the number of permanent OCONUS bases had been reduced to 14 while the number of expeditionary locations had increased to 20. This is significant when we consider the opportunity it affords for further integration of the active and reserve components. While active duty airmen were permanently assigned to overseas units, there was very little opportunity for any type of relationship with the Air Force Reserve or the Air National Guard. However, as more of the force is stationed at home, greater possibilities now exist. Active, Guard, and Reserve forces could be co-located, train together, operate the same equipment, and deploy together. The likelihood of these types of mergers is even greater when the number of stateside operating locations is assessed. From 1959 through 1995, 117 bases were closed in the United States, while only 25 were opened.<sup>18</sup> Today, the Air Force has 70 bases at home, while the Air Force Reserve and Air National Guard operate out of 237 different locations. While it is necessary for the Guard and Reserve to remain dispersed as a community based force, the active force is less constrained. With another round of base closings scheduled for this year,



the possibility exists to close more active installations and to migrate affected units to a Guard or Reserve operating location. This concept is referred to as city basing and has the potential to save money and present a more unified total force picture. Although this is a major development, it is a relatively small factor when compared to the impact of the next two issues.

According to a report on changes that occurred in the United States labor force between 1950 and 2000, and changes that are projected to occur between 2000 and 2050, our population growth rate is expected to decline and the average age of the population will continue to rise.<sup>19</sup> What is the significance of this for the Air Force? One major ramification will be the resultant smaller pool of individuals from which the service can recruit its future officer and enlisted personnel. The military has traditionally been viewed as a young person's career. Based on the rigorous demands of the military lifestyle, both mental and physical, the typical recruit has been a recent graduate of high school or college. Focusing on the 16-24 year age group, the report projects a 1.5 percent decline in the overall size of this group between 2010 and 2020.<sup>20</sup> Compounding this problem is the expectation that more of these individuals are expected to enter the work force later than previous generations. It is projected that participation rates for this group will drop from 67.5 percent in 2010 to 65.1 percent in 2020. In all, this equates to 1.5 million fewer men and women available to fill the ranks by 2020. The Air Force will be competing with the other military services and the civilian workforce for this smaller pool of individuals. What are some possible ways to mitigate this problem?

One solution would be to further reduce the size of the force. If the Air Force's endstrength is lowered, then it should be able to maintain a smaller force with fewer annual accessions. Another possibility would be to expand the possible pool of recruits. Since military service is already open to women and minorities, targeting an older segment of the population would be the most likely change. However, it is difficult to envision many 30-40 year olds being attracted to military service. Most people in this age range will have established other careers, as well as families, thus making military service less attractive for this group of individuals. A final solution to this potential personnel crisis would be to improve retention rates and to extend military careers beyond today's typical 20 year length. The issue here is how many people will want to remain in active military service beyond early adulthood. Retaining people on active duty for longer periods of time may be a tough sell, but retaining additional experience in the reserve component might not be as difficult. The most current information available today indicates that the average length of service for an Air Force active duty officer is 11 years, while the active duty enlisted average is 8 years.<sup>21</sup> By comparison, the average length of service for an Air National Guard officer is 17.3 years and for an Air National Guard enlisted, 13.6 years.

The Air Force Reserve figures are 17.3 years for officers and 14.6 years for enlisted personnel.<sup>22</sup> Assuming that this is a viable trend and not just some aberration, the idea of maintaining future endstrength through retention relies heavily on reserve component participation. Given this scenario it is easier to realize why it will be so important to find a better way to blend the contributions of the active and reserve components in a seamless manner.

Another problem that is created by the graying population is the impact that this will have on federal spending decisions. The baby boom generation, consisting of those born between 1946 and 1964, will begin retiring in large numbers in the 2010-2020 timeframe.<sup>23</sup> According to a United States Government Accounting Office report published in 2002, the segment of the population that is over 65 will double by 2035.<sup>24</sup> This will require a significant increase in outlays for social security and medicare to support these senior citizens. These two expenses plus interest on the national debt are expected to represent three fourths of the federal budget by 2030, and by 2050 these three will exceed total federal revenue.<sup>25</sup> Even with some legislative adjustment to these entitlement programs, it is easy to understand why the discretionary spending available for defense will be flat or declining throughout this period.

How will the Air Force operate in this increasingly constrained fiscal environment? A smaller force, as suggested in the preceding paragraph, is one way to reduce costs. Another way is to reduce equipment inventory. The good news here is that although aircraft are becoming more expensive, the capabilities they provide are much greater than previous generations. While the B-2 purchase and current inventory is smaller than previous generations of bombers, it represents much greater combat capability than our previous generations of bomber aircraft.<sup>26</sup> Likewise, the future fighter buy of F-22 and F-35 aircraft is projected to be 48 percent smaller than the purchase of our current generation of fighter aircraft, but these newer weapon systems will exceed the capabilities inherent in today's force.<sup>27</sup> While manpower and equipment reductions will significantly reduce the costs of maintaining the future Air Force, there is a third possibility that will likely contribute to further mitigating the costs of doing business. Shifting a larger portion of the total force from the active to the reserve component will lower the overall peacetime costs of doing business. The Air Force Reserve supplies 20 percent of the total Air Force capability, yet operates on only 4 percent of the Air Force budget.<sup>28</sup> Similarly, the Air National Guard provides 34 percent of the total capability for only 7 percent of the budget. Maintaining this type of efficiency is another reason to work towards achieving the best possible organization for the active and reserve elements of our aerospace forces. With all of these factors in mind, it is now time to explore what some of these future force structures may look like.

## **FUTURE TOTAL FORCE OPTIONS**

All of the future concepts described in this study are loosely based on the current Air Force standard wing structure. It is through changes in the composition of the standard wing that one can expect to yield improvements in future capability. Today's typical Air Force wing consists of one type of aircraft, i.e. fighter, bomber, tanker, and one category of personnel, either active duty, guard, or reserve. There are then only a few basic ways to alter this construct—you can change the people, change the equipment, or change both. As mentioned earlier, the Aerospace Expeditionary Wing (AEW) is an example of the latter, combining both different types of weapon systems as well as elements of both the active and reserve components into one organization. If the AEW works well while deployed, then why does the Air Force organize differently at home?

General Merrill A. McPeak, the Chief of Staff of the Air Force in the early 1990's did propose a change to the peacetime wing structure which he called the combined wing.<sup>29</sup> Although the combined wing did not focus on the people side of the equation, it did experiment with co-locating different weapons systems at one installation. This concept lives on today at a small number of bases; however, the benefits of conducting training for a single mission or weapon system at a single location appear to outweigh the advantages that can be obtained from the peacetime combined wing. However, as the total number of installations continues to decline, the cost savings afforded by the combined wing may make this option more attractive in the future. The other possibility, referred to earlier as city basing, would co-locate active and reserve military members at one installation. Although this is not a new concept, there is now more interest than ever before in expanding the existing programs and perhaps creating a few new ones. According to the Air Force Plans and Programs office, the four organizational constructs that are being pursued today are the Reserve Associate Unit, the Active Associate Unit, the Blended Unit, and the Sponsored Reserve.<sup>30</sup>

### **RESERVE ASSOCIATE UNIT**

The reserve associate unit is created by augmenting an active duty unit with reserve personnel. Generally, the majority of the administrative and support functions are provided by the active unit, while the reservists contribute directly to expanding the capacity for flight operations.<sup>31</sup> The active duty and reserve units maintain separate chains of command, as depicted in figure 1, but operate the same aircraft. The Air Force has used reserve associate units since the late 1960's when they were first introduced in the Military Airlift Command to expand C-141 airlift operations.<sup>32</sup> With the addition of reserve crews to the existing active duty

crews, the number of sorties and flying hours per aircraft could be greatly increased. Currently numerous such units exist in many different types of aircraft. In addition to maintaining a large presence in tanker and airlift operations, the Air Force Reserve Command has also set up these types of units with fighter aircraft, to include an F-15 unit at Tyndall AFB, Florida as well as F-16 units at Luke AFB, Arizona, and Shaw AFB, South Carolina. The Air National Guard created its first such operation at Tyndall AFB, Florida in 1999.<sup>33</sup>

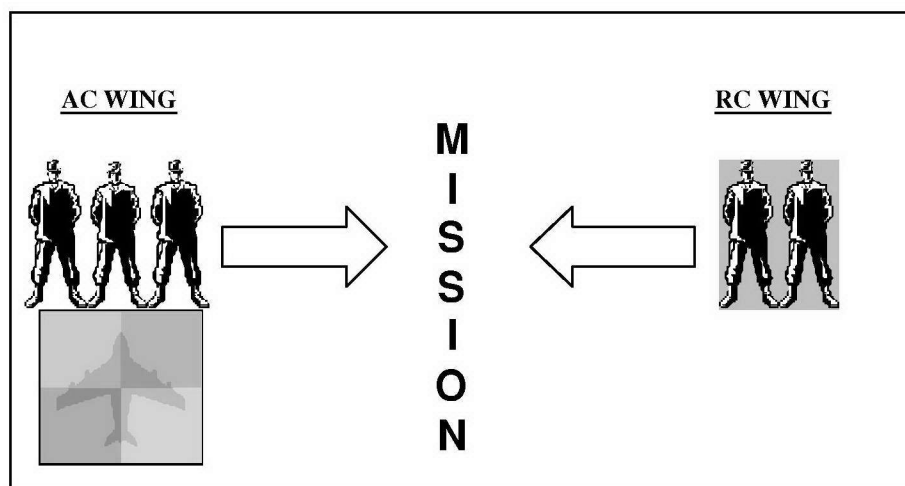


FIGURE 1. RESERVE ASSOCIATE UNIT

#### ACTIVE ASSOCIATE UNIT

The active associate concept is very similar to the reserve associate relationship outlined above. The principle difference is that instead of reserve personnel augmenting an active operation, the reverse is true. Active duty personnel help operate reserve aircraft at a reserve operating location. As with the previous example, both the active and reserve forces maintain separate chains of command, but come together to perform the same mission. This type of operation is currently being performed by members of the Air Force Special Operations Command at Duke Field, Florida.<sup>34</sup> Active duty members of the 8<sup>th</sup> Special Operations Squadron work alongside their reserve counterparts in the 711<sup>th</sup> Special Operations Squadron to fly missions in the MC-130 combat talon aircraft. An example of this type of organization is depicted in figure 2.

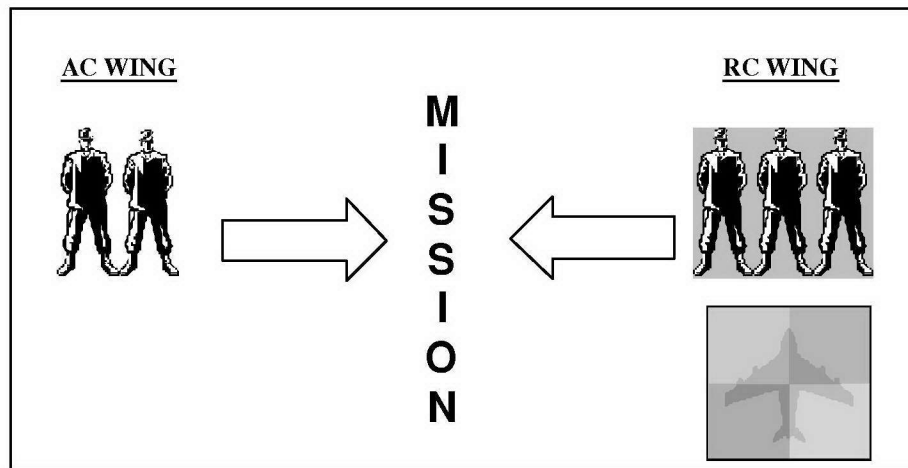


FIGURE 2. ACTIVE ASSOCIATE UNIT

#### BLENDED UNIT

The Blended Unit, also known as the blended wing, is one of the newest concepts for integrating active and reserve component personnel. Instead of members from one component augmenting an operation from the other component, a blended organization more fully integrates the operation and shares the responsibility for the operation of the mission across both components. Instead of having a reserve unit and an active unit working closely together, you essentially have a single unit comprised of active and reserve members.<sup>35</sup> Although there are numerous administrative challenges involved in creating such a unit, the operational advantages are tremendous. The 116<sup>th</sup> Air Control Wing at Robbins AFB, Georgia is the first blended wing in the Air Force. The unit operates the E-8C surveillance aircraft and deployed for combat operations shortly after it stood up in late 2002.<sup>36</sup> An example of this organization is depicted in figure 3.

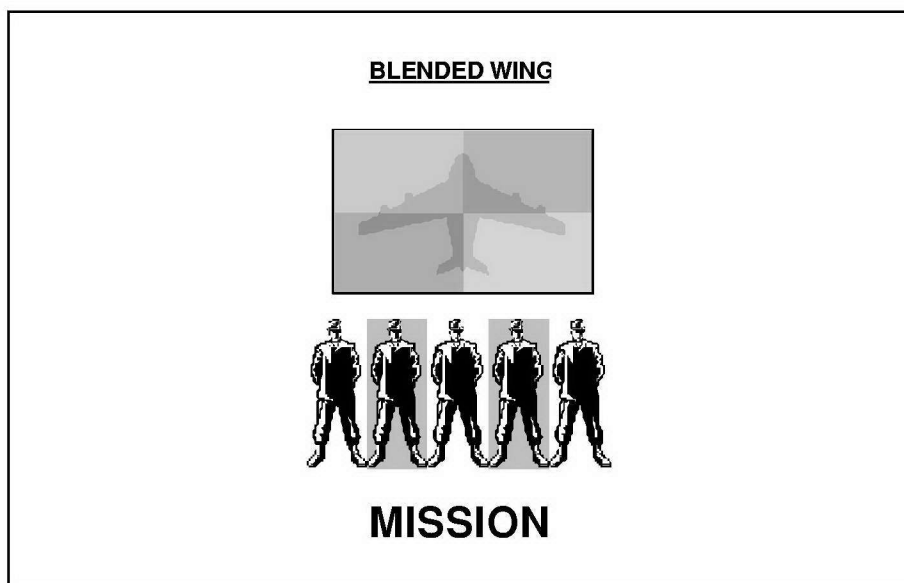


FIGURE 3. BLENDED UNIT

#### SPONSORED RESERVE

The last type of organization, the sponsored reserve, enables the Air Force to more fully integrate contract personnel into military operations. It would make membership in a reserve component military unit a requirement for employment as a contractor.<sup>37</sup> When conditions warrant, the contractor would be required to perform service in his or her military role versus the government contractor role. The objective with this type of organization is to preserve unity of command during military operations and to tap into certain civilian skill sets that may be difficult to recruit and retain in full time military service. While this concept is very different from the first three described above, it is included here for the purpose of comparison.

#### THE WAY AHEAD

It is clear that the Air Force will have to address changes in its future force structure. A declining defense budget and a shrinking labor pool will translate into fewer weapon systems and fewer people available to operate and maintain them. The good news is that newer technology will allow a smaller force to achieve greater effects and may enable the force to execute more of these missions from home station. The issue still remains that the Air Force will rely on both active and reserve component personnel to execute these missions; therefore,

it must develop the organizational structure that best supports these operations. The previous section reviewed four potential designs currently under consideration. Since the active and reserve associate concepts are variations on the same theme, they are referred to collectively as the associate concept for the remainder of this discussion. While the sponsored reserve concept is an exciting way to integrate contractors into the force more effectively, it does not achieve greater integration of the active and reserve component. Additionally, the sponsored reserve will work equally well in combination with any of the other organizational concepts. For this reason, the balance of this discussion will be limited to a comparison of the associate wing and blended wing concepts.

As explained above, the principal difference between these two involves the types of command structure employed. The associate wing consists of an active unit and a reserve or guard unit working in close proximity to each other, while the blended wing more fully integrates all of the personnel into a single unit. As stated earlier, one means of comparing the suitability of the two structures is to evaluate them against the Air Force's characteristics and principles for organizations outlined at the beginning of this article.

Both structures appear to be equally effective at meeting the requirements for mission orientation, decentralization, and standardization. Initially, it appears that the issues of unambiguous command and simplicity are more difficult to evaluate. When we refer to figures 1 and 2, the associate concept appears simpler and cleaner, while the blended concept in figure 3 appears more complex. When the blended wing concept is applied to the Air National Guard, it appears even more complicated. This is because in addition to maintaining the federal (Title 10) chain of command to the President, a state (Title 32) chain of command to the Governor must also exist. For this reason, the associate concept appears to have the advantage of simplicity of structure; however, unambiguous command requires more careful consideration. Today's airmen may be more comfortable with the associate concept because they are more familiar with it. The Air Force has had experience with the associate concept for over 35 years. While some of the problems with the blended wing are real and must be addressed, others may be more a matter of perception. According to Brigadier General Taco Sanchez, the man tasked with developing and implementing these FTF initiatives, "It is important to distinguish between the constitutional, legal, regulatory, and cultural issues and not confuse them with one another."<sup>38</sup> In essence, some laws and regulations will have to be changed to facilitate a move towards the blended wing, but some of the change will be in our attitude towards the concept. The need to identify oneself as a member of a group, and to perceive that group as prestigious are both critical to the success of the organization. Allowing people to identify themselves as

members of an occupational community, i.e. fighter pilots, rather than active duty, guard, or reserve, will help in achieving a healthy, blended organization. The final two characteristics, agility and flexibility, will be easier to achieve in a blended wing. Coordinating and implementing change in a single unit will almost always be preferable to trying to achieve consensus across multiple organizations.

Referring back to the principles which support these characteristics reveals an even clearer picture. While skip-echelon structure and standard levels are the same for associate and blended units, the other three principles are not. 'Emphasis on wartime tasks' states that an organization must be able to accomplish wartime tasks without reorganizing. Since the Air Force currently conducts wartime tasks via the expeditionary wing, the associate concept does not work. Instead, the blended wing with one commander in charge of active and reserve forces more closely mirrors the wartime employment concept. Additionally, the principle of functional grouping can be better achieved under the blended concept. Assembling persons to do the same activity, whether active or reserve, can be achieved under the blended concept and with 'one individual in charge'. Finally, the principle of lean organizational structures is also better met under the blended concept. It is almost always possible to gain efficiencies from operating one blended unit versus the two units which would exist under the associate concept. This increase in efficiency also translates into lower overall operating expenses. As referenced at the beginning of this article, a clear goal for every organization is that it should minimize the costs for a given activity.

The blended wing is also a better choice when considering the concept of 'continuum of service'. The idea behind this concept is that individuals may want to change their component of service for various reasons throughout their career. While private companies hire both full time and part time employees, they usually work for the same person. Currently, if an airman wants to leave active duty to become a reservist, that individual must cross the street and go to work for someone else. Under the blended wing concept, an individual could potentially change components while continuing to work for the same person in the same job. This scenario would provide tremendous flexibility to the organization and relieve much of the stress associated with career transitions between active and reserve service.

Although there is much work to be done, further integration in the form of the blended wing will better meet the characteristics and principles required for Air Force organizations. The blended wing builds upon the current associate concept by retaining all of the operational advantages inherent in that model and packaging it into a single entity. This work will not be easy, but it will pay dividends in the future by creating a seamless force that can execute



aerospace operations across the continuum of conflict. The Air Force is already moving forward with FTF in hopes of realizing some of these gains as soon as possible. It recently announced several initiatives that are either underway or will be implemented in the near future.

The mission of the Air Force is to “organize, train, and equip” the world’s premier air and space force. Although attention is frequently focused on the train and equip piece, the Air Force recognizes that the organization is equally important. Air Force General Richard Myers, the current Chairman of the Joint Chiefs of Staff, stated that, “transformation is about creating new relationships and a new operating culture...It means becoming a dramatically better force.”<sup>39</sup> Transforming the Air Force now in a way that better integrates all three components will be a crucial factor towards future success. The words of Mark Twain echo our call to duty in this regard – “twenty years from now you will be more disappointed by the things that you didn’t do than by the things you did do.”<sup>40</sup>

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## ENDNOTES

<sup>1</sup> Department of Defense, *Transformation Planning Guidance*, (Washington, D.C.: U.S. Department of Defense, April 2003), 3.

<sup>2</sup> Lt Gen Duncan McNabb, "Statement to the House Armed Services, Subcommittee on Terrorism, Unconventional Threats, and Capabilities, Regarding Air Force Transformation," 26 February 2004; available from <<http://www.house.gov/hasc/openingstatementandpressreleases/108thcongress/04-02-26mcnabb.htm>>; Internet; accessed 1 September 2004.

<sup>3</sup> James G. March and Herbert A. Simon, *Organizations* (New York: J. Wiley & Sons Inc.), 22.

<sup>4</sup> Ibid.

<sup>5</sup> Department of the Air Force, *Manpower and Organization*, Air Force Policy Directive 38-1 (Washington, D.C.: U.S. Department of the Air Force, 1 June 1996), 1.

<sup>6</sup> Department of the Air Force, *Manpower and Organization*, Air Force Instruction 38-101 (Washington, D.C.: U.S. Department of the Air Force, 21 April 2004), 5.

<sup>7</sup> Ibid., 14.

<sup>8</sup> Douglas E. Cupo, *Managing Strategic Organizational Change*, Cooperative Degree Program Professional Research Paper (Carlisle Barracks: U.S. Army War College, May 1996), 30.

<sup>9</sup> "Force Structure, United States Army Air Forces and United States Air Force," Air Force Historical Research Agency 13 March 2002; available from <[http://www.au.af.mil/au/afhra/wwwroot/usaf\\_wingforce\\_structure/force\\_structure.htm](http://www.au.af.mil/au/afhra/wwwroot/usaf_wingforce_structure/force_structure.htm)>; Internet; accessed 7 November 2004.

<sup>10</sup> "2004 USAF Almanac," *Air Force Magazine* No. 5 (May 2004): 49.

<sup>11</sup> Lt Col Brad Seipel, "Air Force Plans and Programs," briefing slides with commentary, Carlisle Barracks, U.S. Army War College, 22 July 2004.

<sup>12</sup> Richard G. Davis, *Anatomy of Reform: The Expeditionary Air Force*, Air Force History and Museums Program 2003.

<sup>13</sup> James M. Snead, "Global Air Mobility and Persistent Airpower Operations," *Air & Space Power* 3 (Fall 2004): 49.

<sup>14</sup> Scott Elliott, "Chief of Staff Outlines Plans for Fewer Combat Aircraft," 13 September 2004; available from <[http://www.af.mil/news/story\\_print.asp?storyID=123008629](http://www.af.mil/news/story_print.asp?storyID=123008629)>; Internet; accessed 14 September 2004.

<sup>15</sup> MSgt Christopher P. Gillis, "WA 101 Generic," briefing slides with commentary, Arlington, VA, National Guard Bureau, 12 July 2004.

<sup>16</sup> Kate Tobin, "Experimental NASA jet reaches Mach 10," 16 November 2004; available from <<http://www.cnn.com/2004/TECH/11/16/scramjet.delay/index.html>>; Internet; accessed 17 November 2004.

<sup>17</sup> Lt Col Seipal.

<sup>18</sup> Ibid.

<sup>19</sup> Mitra Toossi, "A Century of Change: The U.S. Labor Force, 1950-2050," May 2002; available from <<http://www.bls.gov/opub/mlr/2002/05/art2full.pdf>>; Internet; accessed 30 September 2004.

<sup>20</sup> Ibid.

<sup>21</sup> "Service Demographics Offer Snapshot of Force," 21 April 2004; available from <<http://www.afpc.randolph.af.mil/pubaffairs/release/2004/04/April04demographics.htm>>; Internet; accessed 10 January 2005.

<sup>22</sup> Assistant Secretary of Defense for Reserve Affairs, *Official Guard and Reserve Manpower Strengths and Statistics, FY03 Summary*, (Washington, D.C.: Office of the Assistant Secretary of Defense) 2.151-2.154.

<sup>23</sup> Toossi, 17.

<sup>24</sup> General Accounting Office, "Budget Issues: Long Term Fiscal Challenges," 27 February 2002; available from <<http://www.gao.gov/new.items/do2567+.pdf>>; Internet; accessed 8 December 2004.

<sup>25</sup> Ibid.

<sup>26</sup> Elliott.

<sup>27</sup> MSgt Gillis.

<sup>28</sup> Wayne R. Gracie, "Air Force Reserve Update," briefing with commentary, Carlisle Barracks, U.S. Army War College, 23 July 2004.

<sup>29</sup> James W. Canan, "McPeak's Plan," February 1991; available from <<http://www.afa.org/magazine/1991/0291mcpeak.asp>>; Internet; accessed 14 December 2004.

<sup>30</sup> "Future Total Force," available from <<https://my.af.mill/gccs-AF/AFP40/USAF/ep/contentView.do?pagetypeID=1073762823&programID=131818&contenttype=editorial&contentID=467871>>; Air Force Portal, Internet; accessed 14 December 2004.

<sup>31</sup> Ibid.

<sup>32</sup> Donald J. Halpin, *A Question of Access: Options for Air Mobility Command's Force Mix*, Research Report (Maxwell Air Force Base: Air University, April 2003), 40.

<sup>33</sup> "Future Total Force."

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> John A. Tirpak, "The Blended Wing Goes to War," *Air Force Magazine*, October 2003. [Journal on-line]; available from <<http://www.afa.org/magazine/oct2003/1003blend.html>>; Internet; accessed 1 September 2004.

<sup>37</sup> "Future Total Force."

<sup>38</sup> Brig Gen Taco Sanchez, interview by author, 29 September 2004, Washington, D.C.

<sup>39</sup> MSgt Gillis.

<sup>40</sup> Air National Guard, *Vanguard Engagement Strategy*, (Arlington, VA: Air National Guard, n.d.).



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